

In the claims:

Please amend the claims as shown below:

- 5 1. (Currently amended) A method for dewatering and washing a lime mud before dewatered lime mud is transported to a lime mud kiln, comprising:

dewatering the lime mud in a pressurized filter,

connecting the pressurized filter to a closed gas circulation

10 system,

connecting a filtrate tank to a filtrate side of the pressurized filter and where a fluid level of filtrate is established from the pressurized filter,

pressurizing the pressurized filter,

15 a compressor drawing on a suction side thereof a gas phase from the filtrate tank, and a pressurized side of the compressor pressurizing, via the gas circulation system, a lime mud side of the pressurized filter,

venting a pre-determined amount of the gas phase directly from

20 the gas circulation system, and

adding an equivalent pre-determined amount of fresh air directly to the gas circulation system ~~a recycled gas phase~~ to maintaining a partial pressure of oxygen gas above a pre-determined minimum level.

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2. (Previously presented) The method according to claim 1, wherein a temperature in the pressurized filter, including a temperature of the recycled gas phase, is maintained above 75°C.

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3. (Previously presented) The method according to claim 1 wherein an amount of residual white liquor in the lime mud does not exceed 10% of white liquor that is formed in a previous causticization step.

4. (Previously presented) The method according to claim 1
 wherein the lime mud that has been filtered out from the lime
 mud is dry-fed out from a disc filter for onward
 5 transportation to the lime mud kiln.

5. (Previously presented) The method according to claim 1
 wherein de-airing of the recycled gas phase is carried out on
 the pressurized side of the compressor via a de-airing device
 10 and an addition of fresh air is carried out by an air-supply
 device connected to the suction side of the compressor.

6. (Previously presented) The method according to claim 1
 wherein de-airing of recycled gas phase is carried out on the
 15 suction side of the compressor at a first distance from an
 inlet to the compressor via a de-airing device and an addition
 of fresh air is carried out through an air-supply device on
 the suction side of the compressor at a second distance from
 an inlet to the compressor, where the first distance is
 20 greater than the second distance.

7. (Previously presented) The method according to claim 1
 wherein an amount of recirculated gas phase that is exchanged
 lies within an interval 5-20%.

25 8. (Previously presented) The method according to claim 1
 wherein an amount of recirculated gas phase that is exchanged
 is regulated such that the amount depends on a detected
 process parameter.

30 9. (Previously presented) The method according to claim 8,
 wherein the detected process parameter is the partial pressure
 of oxygen gas in the pressurized filter.

35 10. (Previously presented) The method according to claim 8,

wherein the detected process parameter is a flow rate of lime mud or dewatered lime mud, or parameters that are representative of these flow rates.

- 5 11. (Previously presented) The method according to claim 1 wherein the pressurized filter is of a disc filter type.

12. (Currently amended) ~~An arrangement~~ A method for washing and dewatering a lime mud before dewatered lime mud is transported to a lime mud kiln, comprising:

dewatering the lime mud in a pressurized filter,

5 arranging a recirculation line for a gas phase from a filtrate side of a mud side,

connecting the pressurized filter to a gas circulation system that is essentially closed,

connecting a filtrate tank to a filtrate side of the
10 pressurized filter and where a fluid level of a filtrate is established from the pressurized filter,

pressurizing the pressurized filter,

a compressor drawing on a suction side thereof a gas phase from the filtrate tank and a pressurized side of the

15 compressor pressurizing, via the gas circulation system a lime mud side of the pressurized filter,

venting a certain pre-determined amount of gas phase directly from the gas circulation system, through a de-airing device, and

20 adding an equivalent pre-determined amount of fresh air directly to the gas circulation system through an air-supply device ~~to a recycled gas phase with~~ to maintain a partial pressure of oxygen gas above a pre-determined minimum level.

25 13. (Currently amended) The ~~arrangement~~ method according to claim 12, wherein the de-airing device is arranged at a position on the pressurized side ~~(p)~~ of the compressor, and in that the air-supply device is arranged at a position on the suction side of the compressor.

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14. (Currently amended) The ~~arrangement~~ method according to claim 12, wherein the de-airing device is arranged at a position on the suction side of the compressor at a first distance from the compressor, and ~~in that~~ the air-supply

35 device is arranged at a position on the suction side of the

compressor at a second distance from the compressor, wherein
the first distance is greater than the second distance.

5 15. (Currently amended) The ~~arrangement~~ method according to
claim 12 wherein a control unit controls regulator valves.

10 16. (Currently amended) The ~~arrangement~~ method according to
claim 15, wherein the control unit receives input signals from
sensors.

17. (Currently amended) The ~~arrangement~~ method according to
claim 12 wherein the pressurized filter is of a disc filter
type.

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